The invention claimed is:

1. A color sequencing system for receiving visible light having a significant luminance across the visible light spectrum and for selectively transmitting light with an emphasis on different portions of the spectrum, the system comprising:

a segmented color wheel having four segments, with three of the segments being primarily transmissive in only a portion of the wavelength spectrum of visible light, the portion for each of the three segments not being identical, and with one of the segments being broadly transmissive across the wavelength spectrum of visible light, the broadly-transmissive segment having a transmittance that is not uniform across the wavelength spectrum of visible light so as to provide a desired color of light transmitted therethrough; and

a base to which the color wheel is rotatably mounted.

2. A color sequencing system as defined in claim 1, wherein the color sequencing system is optimized for use with a particular light source by selecting the transmittance of the broadly-transmissive segment so as to provide a substantially uniform light output after the light from the light source has passed through the broadly-transmissive segment.

3. A color sequencing system as defined in claim 2, wherein the spectral transmittance of the broadly-transmissive segment is substantially the inverse of the spectral light output from the light source.

4. A color sequencing system as defined in claim 1, wherein the spectral transmittance of the broadly-transmissive segment is attenuated in some portion of the wavelength spectrum of visible light.

5. A color sequencing system as defined in claim 1, wherein the spectral transmittance of the broadly-transmissive segment is notched in some portion of the wavelength spectrum of visible light.

6. A color sequencing system as defined in claim 1, wherein the three segments transmit light that is primarily red, green, and blue, respectively.

7. A method of creating field sequential color images, comprising:

providing a light source, a color sequencer, and a spatial light modulator;

providing light of primarily one color band from the combination of the light source and the color sequencer while the spatial light modulator displays an image corresponding to that color band;

providing light of primarily a second color band from the combination of the light source and the color sequencer while the spatial light modulator displays an image corresponding to that second color band;

providing light of primarily a third color band from the combination of the light source and the color sequencer while the spatial light modulator displays an image corresponding to that third color band; and

providing spectrally-broad light from the combination of the light source and the color sequencer while the spatial light modulator displays an image corresponding to that spectrally-broad light, wherein the spectrally-broad light has desired spectral characteristics as a result of the combination of the light source and the color sequencer.

8. A method as defined in claim 7, wherein the light source provides light that is substantially non-uniform spectrally and the color sequencer has a corresponding transmittance that is substantially non-uniform spectrally.

9. A method as defined in claim 8, wherein the corresponding transmittance is attenuated in spectral regions where the light from the light source is elevated.

10. A method as defined in claim 7, wherein the non-uniformities of the light from the light source and the corresponding transmittance from the color sequencer are inversely related.

11. A method as defined in claim 7, wherein the images to be displayed are based on input data, and wherein the displayed image corresponding to the spectrally-broad light is derived from the input data and the displayed images corresponding to each color band are adjusted accordingly.

12. A method as defined in claim 10, wherein the spatial light modulator is pixellated and the input data is provided in frames of data specifying the color and brightness for each pixel of the spatial light modulator for each frame, and wherein for each frame a spectrally-broad component is derived from the color and brightness information and this spectrally-broad component is used to create the displayed image corresponding to the spectrally-broad light.

13. A method as defined in claim 7, wherein the color sequencer includes a color wheel.

14. A method as defined in claim 13, wherein the color wheel includes a broadly-transmissive segment with non-uniform spectral transmittance.

15. A method as defined in claim 7, wherein the color sequencer includes birefringent liquid crystal materials that can be controlled to produce light of any combination of at least three different color bands.

16. A method as defined in claim 15, wherein the spectrally-broad light is provided from the color sequencer by combining light from each of the three color bands.

17. A method as defined in claim 16, wherein the particular spectral characteristics of the spectrally-broad light is achieved by controlling one or both of the amplitude and time duration of light from a particular color band.